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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,554

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Dirk Wiemeler

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27572

7590

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EXAMINER

SAN MARTIN, EDGARDO

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/677,554

Applicant(s)

WIEMELER ET AL.

Examiner

Edgardo San Martin

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 6 – 8 and 14 – 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bois (US 3,499,269).

With respect to claims 6 and 17, Bois teaches a vehicle exhaust muffler having variable damping characteristics, the muffler comprising a muffler housing (Fig.1, Item 1), an exhaust gas passage (Fig.1, Item 11) terminating at one end thereof in an interior of the muffler housing, and a valve element (Fig.1, Item 15) having a closing member in the muffler housing adjacent the one end of the exhaust gas pipe, a guide rod with no internal passage (Fig.1) having a first end coupled to the closing member, and a biasing element (Fig.1, Item 17) coupled to a second end of the guide rod (Fig.1), the biasing element located outside of and isolated from the muffler housing interior (Fig.1, Item 18), the biasing element operative in a rest state to urge the closing element via the guide rod toward the one end of the exhaust gas pipe (Col.3, Line 25 – Col.4, Line 9).

With respect to claims 7, 14 and 15, Bois teaches wherein the biasing element comprises a sealed spring housing (Fig.1, Item 18) coupled to an exterior surface of the muffler housing, and a biasing spring (Fig.1, Item 17) resident in the spring housing and coupled to the second end of the guide rod (Fig.1).

With respect to claim 8, Bois teaches a vehicle exhaust muffler comprising a spring guide (Fig.1, Item 16) coupled to a second end of the guide rod (Fig.1) and shaped for receipt of one end of the biasing spring (Fig.1, Item 17).

With respect to claim 16, Bois teaches comprising a single biasing spring resident in the sealed spring housing and coupled to the second end of the guide rod, the spring solely operative against the second end of the solid guide rod (Fig.1).

2. Claims 6, 7, 9, 14, 15, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillingham et al. (US 5,246,205).

With respect to claims 6 and 17, Gillingham et al. teach a vehicle exhaust muffler having variable damping characteristics, the muffler comprising a muffler housing (Fig.3, Item 50), an exhaust gas pipe (Fig.3, Item 96) terminating at one end thereof in an interior of the muffler housing, and a valve element (Fig.3, Item 118) having a closing member in the muffler housing adjacent the one end of the exhaust gas pipe, a guide rod with no internal passage (Fig.3, Item 114 and Fig.6, Item 201) having a first end coupled to the closing member, and a biasing element (Fig.11, Item 339) coupled to a second end of the guide rod (Fig.11, Item 320), the biasing element located outside of and isolated from the muffler housing interior (Fig.11, Item 331), the biasing element operative in a rest state to urge the closing element via the guide rod toward the one end of the exhaust gas pipe (Col.13, Lines 49 - 58).

With respect to claims 7, 9 and 15, Gillingham et al. teach wherein the biasing element comprises a spring housing (Fig.11, Item 331) coupled to an exterior surface of the muffler housing and a biasing spring (Fig.11, Item 339) resident in the spring

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housing and coupled to the second end of the guide rod (Fig.11, Item 320); and further comprising a guide sleeve (Fig.11, Item 325) at least partially surrounding the guide rod and having a first end coupled to the biasing element (Fig.11).

With respect to claims 14 and 16, Gillingham et al. teach wherein the spring housing (Fig.11, Item 331) is sealed; and further comprising a single biasing spring resident in the sealed spring housing and coupled to the second end of the guide rod, the spring solely operative against the second end of the solid guide rod (Fig.11).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillingham et al. (US 5,246,205) in view of Bois (US 3,499,269).

With respect to claim 8, Gillingham et al. teach the limitations discussed in a previous rejection, but fail to disclose further comprising a spring guide coupled to the second end of the guide rod and shaped for receipt of one end of the biasing spring.

Nevertheless, Bois teaches a vehicle exhaust muffler comprising a spring guide (Fig.1, Item 16) coupled to a second end of the guide rod (Fig.1) and shaped for receipt of one end of the biasing spring (Fig.1, Item 17).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Bois spring guide with the Gillingham et al. design because the spring guide would help maintain the spring in place that would facilitate the axial movement of the guide rod.

With respect to claim 12, Bois teaches wherein the one end of the gas pipe is flared radially outwardly (Fig.1, Item 14) and wherein at least a portion of the closing element is likewise conical (Fig.1, Item 15). The Examiner considers that it would be an obvious matter of design choice to provide the end of the gas pipe being flared radially outwardly in conical fashion as to provide a better sealing contact between the end of the pipe and the closing element.

With respect to claim 13, the Examiner takes Official Notice that it is well known in the art of biasing spring elements to employ conical springs depending upon the requirements of the desired application.

4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillingham et al. (US 5,246,205) in view of Bois (US 3,499,269), and further in view of Uegane (US 6,554,099).

Gillingham et al. and Bois teach the limitations discussed in a previous rejection, but fail to disclose further comprising a damping element coupled between the second end of the guide rod and the spring guide, and wherein the damping element comprises a ring of knotted wire.

On the other hand, Uegane teaches a vehicle exhaust muffler having variable damping characteristics, the muffler comprising a damping element (Fig.3, Item 40)

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coupled to valve body, and wherein the damping element comprises a ring of knotted wire (Col.5, Lines 8 – 15).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Uegane damping element coupled between the Gillingham et al. and Bois second end of the guide rod and the spring guide because it would prevent striking noise from being generated due to contact between the spring guide and the spring housing.

### ***Response to Arguments***

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers that the patents to Gillingham et al., Bois and Uegane teach the limitations described in the claims as discussed above.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext.33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín  
Primary Examiner  
Art Unit 2837  
Class 181  
May 1, 2006